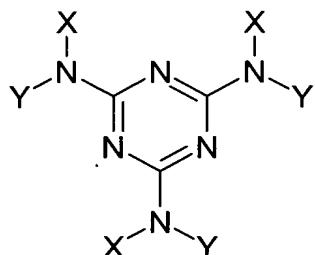


CLAIMS

1. A mixture of 1,3,5-triazine compounds of the general formula:



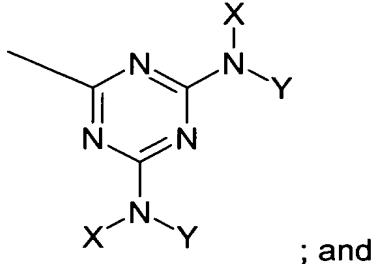
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wherein:

X is selected from the group consisting of $-\text{COOR}$, $-(\text{CH}_2\text{O})_l\text{H}$, $-(\text{CH}_2\text{O})_l\text{R}$, $-(\text{CH}_2\text{O})_k\text{CH}_2\text{N}(\text{X})\text{Q}$, and $-(\text{CH}_2\text{O})_k\text{CH}_2\text{N}(\text{Y})\text{Q}$;

10 Y is independently selected from the group consisting of $-\text{H}$, $-(\text{CH}_2\text{O})_l\text{H}$, $-(\text{CH}_2\text{O})_l\text{R}$, $-(\text{CH}_2\text{O})_k\text{CH}_2\text{N}(\text{X})\text{Q}$, and $-(\text{CH}_2\text{O})_k\text{CH}_2\text{N}(\text{Y})\text{Q}$;
with each k independently being, on average, 0-10, and each l independently being, on average, 1-10;
each R being independently selected from the group consisting of
15 alkyl, cycloalkyl, and alkyl aryl groups;

Q being



wherein said mixture of compounds comprises on average at least 0.05, but fewer than 2 carbamate groups per triazine moiety.

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2. The mixture of 1,3,5-triazine compounds according to claim 1, wherein k and l are each independently, on average, 0.5-2.5.

3. The mixture of 1,3,5-triazine compounds according to claim 1, wherein R is a methyl group or a butyl group or a mixture thereof.

5 4. The mixture of 1,3,5-triazine compounds according to claim 1, wherein the total number of $-(\text{CH}_2\text{O})_i\text{-H}$ groups per triazine moiety on average is at most 1.5, whereas the total number of $-(\text{CH}_2\text{O})_i\text{-R}$ groups per triazine moiety on average is at least 1.0 and at most 3.5.

10 5. The mixture of 1,3,5-triazine compounds according to claim 1, wherein the mixture comprises on average at least 0.1 carbamate groups per triazine moiety, and on average at most 1.9 carbamate groups per triazine moiety.

15 6. A coating composition, comprising:
a) at least one polyhydroxyl group-containing polymer, and
b) the mixture of 1,3,5-triazine compounds according to
claim 1.

20 7. The coating composition according to claim 6, wherein the polyhydroxyl group-containing polymer is selected from the group of acrylic polyols, polyester polyols, and polyurethane polyols.

25 8. The coating composition according to claim 6, wherein the coating composition further comprises one or more additives selected from the group consisting of curing catalyst, solvent, foam inhibitor, levelling aid, pigment, pigment dispersing aid, dye, and UV absorber.

30 9. A method for applying general industrial coatings, automotive coatings, coil coatings, powder coatings, baked enamels, or wood finishes, comprising applying the coating composition according to claim 6.

10. A method for finishing and refinishing automobiles and large transportation vehicles, comprising applying the coating composition according to claim 6.

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11. A process for the preparation of a mixture of 1,3,5-triazine compounds according to claim 1, comprising:

mixing a 1,3,5-triazine compound and at least one base;

adding at least one organic carbonate;

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neutralising the base by addition of an acid;

removing the resulting salt by filtering and washing with water; and

15 adding formaldehyde and an alcohol to form the corresponding methylol ethers.

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12. The process according to claim 11, wherein the mixing of the 1,3,5-triazine compound and the base is carried out using an extruder.

13. The mixture of 1,3,5-triazine compounds according to claim 2, wherein k and l are each independently, on average, about 1.

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14. The mixture of 1,3,5-triazine compounds according to claim 4, wherein the total number of $-(CH_2O)_l-H$ groups per triazine moiety on average is at most 0.8.

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15. The mixture of 1,3,5-triazine compounds according to claim 5, wherein the mixture comprises on average at least 0.25 carbamate groups per triazine moiety.

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16. The mixture of 1,3,5-triazine compounds according to claim 5, wherein the mixture comprises on average at least 0.5 carbamate groups per triazine moiety.

17. The mixture of 1,3,5-triazine compounds according to claim 5, wherein the mixture comprises on average at most 1.5 carbamate groups per triazine moiety.

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18. The mixture of 1,3,5-triazine compounds according to claim 5, wherein the mixture comprises on average at most 1.2 carbamate groups per triazine moiety.

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19. The mixture of 1,3,5-triazine compounds according to claim 1, wherein the mixture comprises on average at most 1.0 carbamate groups per triazine moiety.

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